



DOCKET NO. MS164183.1

RECEIVED

MAR 20 2003

Technology Center 2100

2121#BT
3-26-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: **Dimitris Achlioptas**
Serial No.: **10/086,309**
Filed: **March 1, 2002**
For: **SYSTEM AND METHOD ADAPTED TO FACILITATE DIMENSIONAL TRANSFORM**
Art Unit: **2121**
Examiner: **Unknown**

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.: _____
Filing Date: _____

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

(a) Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.

(b) Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

(a) Within 3 months of the filing date or date of entry into the National Stage.

(b) Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R.

(c) After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

(1) The required certification is given below, or

(2) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement.

(d) After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

(1) Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or

4. Certification (if applicable)

(a) The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

Respectfully Submitted,
AMIN & TUROCY, LLP

By Jeffrey R. Sadlowski
Jeffrey R. Sadlowski
Reg. No. 47,914

AMIN & TUROCY, LLP
24TH Floor, National City Center
1900 E. 9th Street
Cleveland, Ohio 44114

CERTIFICATE OF MAILING

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the below date with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Assistant Commissioner for Patents, United States Patent and Trademark Office, Washington, D.C. 20231

Date: 3-13- 2003

Jeffrey R. Sadlowski



RECEIVED

MAR 20 2003

Technology Center 2100

PTO/SB/08A (10-01)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complaint if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/086,309
				Filing Date	March 1, 2002
				First Named Inventor	Dimitris Achlioptas
				Art Unit	2121
				Examiner Name	Unknown
Sheet	1	of	3	Attorney Docket Number	MS164183.1/MSFTP316US

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-------------------------------	--	----------------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

English language translation is attached.
Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

RECEIVED

MAR 20 2003

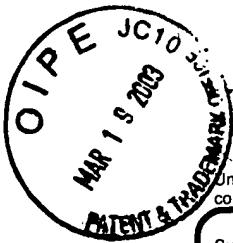
Technology Center 2100

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.



Substitute for form 1449B/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2 of 3

Compl te if Known

Application Number	10/086,309
Filing Date	March 1, 2002
First Named Inventor	Dimitris Achlioptas
Group Art Unit	2121
Examiner Name	Unknown
Attorney Docket Number	MS164183.1/MSFTP316US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		WILLIAM B. JOHNSON, et al.; "Extensions of Lipschitz mappings into a Hilbert space", Contemporary Mathematics, 1984, Pages 189-206, Vol. 26	
		P. FRANKL, et al.; "The Johnson-Lindenstrauss Lemma and Sphericity of Some Graphs", Journal of Combinatorial Theory, 1988, Pages 355-362, Series B 44	
		SANJEEV ARORA, et al.; "Learning Mixtures of Arbitrary Gaussians", 2001, Pages 247-257	
		SANJOY DASGUPTA; "Learning Mixtures of Gaussians", 1999	
		SANJOY DASGUPTA, et al.; "An elementary proof of the Johnson-Lindenstrauss Lemma", March 1999, Pages 1-5	
		PIOTR INDYK; "Stable Distributions, Pseudorandom Generators, Embeddings and Data Stream Computation", 2000, Pages 1-9	
		PIOTR INDYK, et al.; "Approximate Nearest Neighbors: Towards Removing the Curse of Dimensionality", 1998, Pages 604-613	
		JON M. KLEINBERG; "Two Algorithms for Nearest-Neighbor Search in High Dimensions", 1997, Pages 599-608	
		NATHAN LINIAL, et al.; "The geometry of graphs and some of its algorithmic applications", 1995, Pages 1-26	
		CHRISTOS H. PAPADIMITRIOU, et al.; "Latent Semantic Indexing: A Probabilistic Analysis", November 14, 1997, Pages 1-15	
		LEONARD J. SCHULMAN; "Clustering for edge-Cost Minimization", 2000, Pages 1-31	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



RECEIVED

MAR 20 2003

Technology Center 2100

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		<i>Compl te if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/086,309
		Filing Date	March 1, 2002
		First Named Inventor	Dimitris Achlioptas
		Group Art Unit	2121
		Examiner Name	Unknown
(use as many sheets as necessary)		Attorney Docket Number	MS164183.1/MSFTP316US
Sheet	3	of	3

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). **2** Applicant is to place a check mark here if English language Translation is attached.

• Applicant's unique citation designation number (optional): Applicant is to place a checkmark next to English, French or both.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.